CLAIMS

What is claimed is:

1. A system for recording images, comprising:

a camera having an adjustable focus and a field of view defining an image frame having a frame center, the camera for recording an image within the image frame;

a focus adjuster operatively coupled to the camera, for adjusting the focus of the camera within a range of focal planes in the field of view of the camera;

a user interface for receiving user input information, including information associated with a user's selection of a location relative to the field of view of the camera;

a processor operatively coupled to the focus aduster and the user interface, for defining a focal plane within the field of view of the camera dependent on the user selected location and for controlling the focus adjuster to adjust the focus of the camera to the defined focal plane, independent of the position of the selected location relative to the center of the frame of the camera.

2. A system as recited in claim 1, further comprising a distance finding mechanism for determining the distance of the user selected location relative to the camera, wherein said processor is operatively coupled to the distance finding mechanism for determining a focal plane based on the distance of the user selected location relative to the camera.

3. A system as recited in claim 2, further comprising:

a zoom detection mechanism for detecting the zoom state of the camera;

wherein the distance finding mechanism includes a beam directable toward the user-selected location and wherein the processor is operatively coupled to the zoom detection mechanism and the distance finding mechanism for controlling the direction of the beam of the distance finding mechanism based on the detected zoom state of the camera.

4. A system as recited in claim 1, wherein the user-selected location comprises a location in a first focal plane and wherein the processor-defined focal plane is first focal plane.

5. A system as recited in claim 1, wherein:

the user input information further includes user-selected focal plane modifications;

the user-selected location comprises a location in a first focal plane;

the processor-defined focal plane comprises the first focal plane modified in accordance with the user-selected focal plane modifications;

6. A system as recited in claim 5, wherein the user-selected focal plane modifications comprise a modification of the focal plane a pre-set distance further than the focal plane of the user-selected location.

7. A system as recited in claim 5, wherein the user-selected focal plane modifications comprise a modification of the focal plane a user-selectable distance further than the focal plane of the user-selected location.

8. A system as recited in claim 5, wherein the user-selected focal plane modifications comprise a modification of the focal plane a preset distance closer than the focal plane of the user-selected location.

9. A system as recited in claim 5, wherein the user-selected focal plane modifications comprise a modification of the focal plane a user-selectable distance closer than the focal plane of the user-selected location.

10. A system as recited in claim 5, wherein the user-selected focal plane modifications comprise a selected speed at which the camera achieves a focus on the user-selected focal plane.

11. A system as recited in claim 5, wherein the user-selected focal plane modifications comprise a selected shake parameter at which the camera changes into and out of focus on the user-selected focal plane at a particular rate.

12. A system as recited in claim 11, wherein the user input information includes a user-specified shake rate.

13. A system as recited in claim 5, wherein the user input includes a plurality of user selected locations and wherein the user-selected focal plane modifications comprise a selected average mode, wherein the focal plane of the camera is adjusted to the average focal plane of the plurality of user selected locations.

14. A system as recited in claim 1, wherein the user interface includes a display device operatively coupled to display an image corresponding to the image frame of the camera;

15. A system as recited in claim 14, wherein the user interface comprises a touch screen display device.

16. A system as recited in claim 1, wherein the user interface comprises at least one of the group consisting of a touch screen, a keyboard, a mouse, and a joy stick.

17. A system as recited in claim 1, wherein the user interface includes a display device operatively coupled to display an image corresponding to the image frame of the camera and further includes selection means for allowing a user to select the user-selected location on an image frame displayed on the display device.

18. A system as recited in claim 17, wherein said selection means comprises a touch screen associated with the display device.

19. A system as recited in claim 17, wherein said selection means comprises a cursor control means associated with the display device, for allowing a user to control the location of a cursor on the image displayed on the display device.

20. A process for recording images, comprising:

recording an image frame within the field of view of a camera;

adjusting the focus of the camera to at least one focal plane within a range of focal planes in the field of view of the camera;

receiving user input information through a user interface, including information associated with a user's selection of a location relative to the field of view of the camera;

defining, with a processor, a focal plane within the field of view of the camera dependent on the user selected location; and

controlling, with the processor, the focus adjuster to adjust the focus of the camera to the defined focal plane, independent of the position of the selected location relative to the center of the frame of the camera.

21. A process as recited in claim 20, further comprising determining the distance of the user selected location relative to the camera with a distance finding mechanism, wherein said processor is operatively coupled to the distance finding mechanism for determining a focal plane based on the distance of the user selected location relative to the camera.

22. A process as recited in claim 21, further comprising:

detecting the zoom state of the camera;

controlling the direction of a beam of the distance finding mechanism based on the detected zoom state of the camera.

23. A process as recited in claim 20, further comprising receiving user-selected focal plane modifications through the user interface, wherein the user-selected location comprises a location in a first focal plane and wherein the processor-defined focal plane comprises the first focal plane modified in accordance with the user-selected focal plane modifications;

24. A process as recited in claim 23, wherein the user-selected focal plane modifications comprise a modification of the focal plane to a focal plane further than the focal plane of the user-selected location.

25. A process as recited in claim 23, wherein the user-selected focal plane modifications comprise a modification of the focal plane to a focal plane closer than the focal plane of the user-selected location.

26. A process as recited in claim 23, wherein the user-selected focal plane modifications comprise a selected speed at which the camera achieves a focus on the user-selected focal plane.

27. A process as recited in claim 23, wherein the user-selected focal plane modifications comprise a selected shake parameter at which the camera changes into and out of focus on the user-selected focal plane at a particular rate.

28. A process as recited in claim 23, wherein the user input includes a plurality of user selected locations and wherein the user-selected focal plane modifications comprise a selected average mode, wherein the focal plane of the camera is adjusted to the average focal plane of the plurality of user selected locations.

29. A process as recited in claim 20, further comprising displaying an image corresponding to the image frame of the camera on a display device associated with the user interface includes a display device operatively coupled to display an image corresponding to the image frame of the camera.